

**MATH 463:** Complex Variables for Scientists and Engineers  
**Department of Mathematics, UMCP**  
**Homework 3**

**Spring 2015**  
**Posted:** Friday, 02/27/15  
**Due:** Wednesday, 03/11/15

Answer all questions. Make sure that you explain all your steps and justify your answers.

17. (5pts each) (a) Do Prob. 8 of section 4.1, p. 160 of textbook.  
(b) Do Prob. 11 of section 4.1, p. 161 of textbook.
18. (5pts each) (a) Do Prob. 6 of section 4.2, p. 171 of textbook.  
(b) Do Prob. 13 of section 4.2, p. 171 of textbook.
19. (5pts each) (a) Do Prob. 14 of section 4.2, pp. 171, 172 of textbook.  
(b) Do Prob. 16 of section 4.2, p. 172 of textbook.
20. (a)[2 pts] Do Prob. 2 of section 4.3, p. 178 of textbook.  
(b)[8 pts] Do Prob. 1(e), (g), (h), (i) of section 4.3, p. 178 of textbook.
21. (5pts each) (a) Do Prob. 10 of section 4.4, p. 201 of textbook.  
(b) Do Prob. 16 of section 4.4, p. 202 of textbook.
22. (a)[5pts] Do Prob. 17 of section 4.4, p. 203 of textbook.  
(b)[3pts] Do Prob. 18 of section 4.4, p. 203 of textbook.  
(c)[2pts] Do Prob. 19 of section 4.4, p. 203 of textbook.
23. (a)[4pts] Do Prob. 4 of section 4.5, p. 212 of textbook.  
(b)[4pts] Do Prob. 7 of section 4.5, p. 213 of textbook.  
(c)[2pts] Do Prob. 8 of section 4.5, p. 213 of textbook.